

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

Amendments to the Claims:

1. (withdrawn) An extendable computer system comprising:
- 5 a motherboard for maintaining the functionality of the computer system, the motherboard comprising:
- a system chipset for supporting a specification of a first interface;
- at least one first standard communication interface slot electrically connected to the system chipset for electrically connecting at least one peripheral device to the computer system; and
- 10 a first extending port electrically connected to the system chipset for extending functionality of the motherboard; and
- an extended board capable of electrically connecting to the motherboard for extending the functionality of the computer system, the extended board comprising:
- 15 a second extending port capable of electrically connecting to the first extending port for electrically connecting the extended board to the system chipset of the motherboard, wherein at least one end of the second extending port is in accordance with the specification of the first interface; and
- 20 at least one second standard communication interface slot electrically connected to the at least one end of the second extending port for electrically connecting at least one peripheral device to the computer system, wherein the at least one second standard communication interface slot is in accordance with the specification of the first interface.
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2. (withdrawn) The computer system of claim 1 wherein the first interface is a PCI Express interface.

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

3. (withdrawn) The computer system of claim 1 wherein the system chipset is a North Bridge chipset or a South Bridge chipset.
4. (withdrawn) The computer system of claim 1 wherein the extending ports consist of a Golden Finger Slot and a matched Golden Finger, and the extended board and the motherboard are aligned in the same plane through the connection of the extending ports.
5. (original) An extendable computer system comprising:
 - 10 a motherboard for maintaining the functionality of the computer system, the motherboard comprising:
 - a system chipset for supporting a specification of a first interface;
 - at least one first standard communication interface slot electrically connected to the system chipset for electrically connecting at least one peripheral device to the computer system; and
 - 15 a first extending port electrically connected to the system chipset for extending functionality of the motherboard; and
 - an extended board capable of electrically connecting to the motherboard for extending the functionality of the computer system, the extended board comprising:
 - 20 a second extending port capable of electrically connecting to the first extending port for electrically connecting the extended board to the system chipset of the motherboard, wherein at least one end of the second extending port is in accordance with the specification of the first interface;
 - 25 a second interface converter electrically connected to the at least one end of the second extending port for converting the first interface into a second interface; and

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

5 at least one second standard communication interface slot electrically
connected to the second interface converter for electrically connecting
at least one peripheral device to the computer system, wherein the at
least one second standard communication interface slot is in
accordance with the specification of the second interface.

10 6. (original) The computer system of claim 5 wherein the first extending port further
comprises at least one first monitoring end electrically connected to a power
management chipset of the computer system for transmitting at least one
Hot-Plug/Power Switch monitoring signal and the extended board further
comprising:
at least one switching circuit, for performing Hot-Plug control and power
management of the at least one second standard communication interface slot,
electrically connected to:
15 the second interface converter and the at least one second standard
communication interface slot; and
the at least one first monitoring end through at least one second monitoring
end of the second extending port;
wherein the second interface converter is capable of controlling the at least one
20 switching circuit with a protocol of the second interface to switch on or switch off
the protocol, data signals, and power of the at least one second standard
communication interface slot.

25 7. (original) The computer system of claim 6 wherein the power management chipset is a
South Bridge chipset.

8. (original) The computer system of claim 5 wherein the extended board further
comprises:

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

5 a third interface converter electrically connected to the second interface converter
for converting the second interface into a third interface; and
at least one third standard communication interface slot electrically connected to the
third interface converter for electrically connecting at least one peripheral
device to the computer system, wherein the at least one third standard
communication interface slot is in accordance with the specification of the
third interface.

10 9. (original) The computer system of claim 8 wherein the third interface converter is a
RAID controller or a SCSI controller.

15 10. (original) The computer system of claim 5 wherein the first interface is a PCI Express
interface, the second interface is a PCI-X interface, and the second interface
converter is a PCI Express/PCI-X interface converter.

11. (original) The computer system of claim 10 wherein the system chipset is a North
Bridge chipset or a South Bridge chipset.

20 12. (original) The computer system of claim 5 wherein the extending ports consist of a
Golden Finger Slot and a matched Golden Finger, and the extended board and the
motherboard are aligned in the same plane through the connection of the extending
ports.

25 13. (original) The computer system of claim 5 wherein the extended board further
comprises:
at least one switching circuit electrically connected to the second interface
converter and the at least one second standard communication interface slot
for performing Hot-Plug control and power management of the at least one

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

5 second standard communication interface slot; and
at least one switching button electrically connected to the at least one switching
circuit for controlling the at least one switching circuit to switch on or switch
off the protocol, data signals, and power of the at least one second standard
communication interface slot.

10 14. (original) The computer system of claim 5 wherein the first extending port further
comprises at least one first power management end set electrically connected to the
power management chipset of the computer system for transmitting at least one
power management signal and at least one monitoring signal and the extended
board further comprising:
at least one switching circuit, for performing Hot-Plug control and power
management of the at least one second standard communication interface slot,
electrically connected to:
15 the second interface converter and the at least one second standard
communication interface slot; and
the at least one first power management end set through at least one second
power management end set of the second extending port;
wherein the power management chipset is capable of controlling and monitoring
20 the Hot-Plug control and the power management of the at least one second standard
communication interface slot with the at least one switching circuit, and the second
interface converter is capable of controlling the at least one switching circuit with a
protocol of the second interface to switch on or switch off the protocol and data
signals of the at least one second standard communication interface slot when
25 receiving the at least one power management signal.

15. (withdrawn) An extendable computer system comprising:
a motherboard for maintaining the functionality of the computer system, the

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

motherboard comprising:
a system chipset for supporting a specification of a first interface;
at least one first standard communication interface slot electrically connected
to the system chipset for electrically connecting at least one peripheral
5 device to the computer system; and
a first extending port electrically connected to the system chipset for
extending functionality of the motherboard; and
an extended board capable of electrically connecting to the motherboard for
extending the functionality of the computer system, the extended board
10 comprising:
a second extending port capable of electrically connecting to the first
extending port for electrically connecting the extended board to the
system chipset of the motherboard, wherein at least one end of the
second extending port is in accordance with the specification of the
15 first interface;
a second interface converter electrically connected to the at least one end of
the second extending port for converting the first interface into a
second interface;
a third interface converter electrically connected to the second interface
20 converter for converting the second interface into a third interface; and
at least one third standard communication interface slot electrically
connected to the third interface converter for electrically connecting at
least one peripheral device to the computer system, wherein the at least
one third standard communication interface slot is in accordance with
25 the specification of the third interface.

16. (withdrawn) The computer system of claim 15 wherein the third interface converter
is a RAID controller or a SCSI controller.

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

17. (withdrawn) The computer system of claim 15 wherein the first interface is a PCI Express interface, the second interface is a PCI-X interface, and the second interface converter is a PCI Express/PCI-X interface converter.
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18. (withdrawn) The computer system of claim 15 wherein the extending ports consist of a Golden Finger Slot and a matched Golden Finger, and the extended board and the motherboard are aligned in the same plane through the connection of the extending ports.
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19. (withdrawn) The computer system of claim 15 wherein the extended board further comprises:
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- at least one switching circuit electrically connected to the third interface converter and the at least one third standard communication interface slot for performing Hot-Plug control and power management of the at least one third standard communication interface slot, and
- at least one switching button electrically connected to the at least one switching circuit for controlling the at least one switching circuit to switch on or switch off the protocol, data signals, and power of the at least one third standard communication interface slot.
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20. (withdrawn) The computer system of claim 15 wherein the first extending port further comprises at least one first power management end set electrically connected to the power management chipset of the computer system for transmitting at least one power management signal and at least one monitoring signal and the extended board further comprising:
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- at least one switching circuit, for performing Hot-Plug control and power management of the at least one third standard communication interface slot,

Appl. No. 10/707,860
Amdt. dated May 12, 2006
Reply to Office action of April 13, 2006

electrically connected to:

the third interface converter and the at least one third standard
communication interface slot; and

the at least one first power management end set through at least one second
power management end set of the second extending port;

wherein the power management chipset is capable of controlling and monitoring
the Hot-Plug control and the power management of the at least one third standard
communication interface slot with the at least one switching circuit, and the third
interface converter is capable of controlling the at least one switching circuit with a
protocol of the third interface to switch on or switch off the protocol and data
signals of the at least one third standard communication interface slot when
receiving the at least one power management signal.